

## LABORATORY FOR ATMOSPHERES

### Section 12

#### 12. 1996 Seminars

##### Laboratory for Atmospheres Seminar Series

Timothy DelSole, NRC Postdoctoral Fellow, NASA Goddard Space Flight Center, "Principal Oscillation Pattern (POP) Analysis for Extracting Dynamical Information from a Climate Time Series," January 23, 1996.

Ming Dah Chou, NASA Goddard Space Flight Center, "Effects of Clouds, Water Vapor, and Sea Surface Temperature on Radiation Budgets in the Tropical Pacific During an El Niño," February 13, 1996.

Kerry A. Emanuel, Massachusetts Institute of Technology, "Adaptive Observations," February 27, 1996.

Andrew Dessler, USRA, "Chlorine Partitioning Between 20 and 30 km: The UARS Perspective," March 5, 1996.

Prashant Sardeshmukh, University of Colorado, "Organization of Extratropical Synoptic and Lower-Frequency Variability by Climatological Stationary Waves," March 12, 1996.

Gerald M. Heymsfield, NASA Goddard Space Flight Center, "Precipitation Studies System Using ER-2 Doppler Radar (EDOP) Observations," March 26, 1996.

Katia Laval, Laboratoire de Meteorologie Dynamique, "The Effect of Land Surface Processes on Climate," April 9, 1996.

Peter H. Stone, Massachusetts Institute of Technology, "Coupled Atmosphere-Ocean Process Models," April 22, 1996.

Arlindo da Silva, NASA Goddard Space Flight Center, "The Data Assimilation Office's Physical-Space Statistical Analysis System (PSAS)," April 23, 1996.

Ngar-Cheung Lau, Princeton University, "The Role of the 'Atmospheric Bridge' in Linking Tropical Pacific Enso Events to Extratropical SST Anomalies," May 14, 1996.

Wayne T. Kasprzak, NASA Goddard Space Flight Center, "Measurements of the Chemical Composition of Jupiter's Atmosphere by the Galileo Probe Mass Spectrometer," May 28, 1996.

Keith S. Noll, Space Telescope Science Institute, "Ozone in an Unusual Environment: Detection on Jupiter's Satellite Ganymede," October 8, 1996.

Melvyn A. Shapiro, NOAA/Environmental Research Laboratory, "The Differences Between Classical Norwegian and Contemporary Conceptualizations of the Life Cycles of Extratropical Cyclones and the Potential of Space-based Remote Sensing for Advances in Cyclone Research and Forecasting," October 30, 1996.

Robert F. Cahalan, NASA Goddard Space Flight Center, "Cloud Macrostructure and Radiation," November 12, 1996.

Edward J. Zipser, USRA Visiting Scientist, Texas A&M University, "Why are Cumulonimbus Clouds Over Land Stronger than Those Over Oceans?," November 26, 1996.

Heidi L. K. Manning, USRA, "Two Approaches to the Measurement of the Composition of a Neutral Atmosphere by Means of Energy Separation," December 10, 1996

### **Tropical Rainfall Measuring Mission Office**

Emmanouil Anagnostou, University of Iowa, "Assessment of Systematic and Random Errors in Radar Rainfall Estimation," May 24, 1996.

Benjamin Kadem, University of Maryland, "Bayesian Prediction of Non-Gaussian Rainfall Fields," June 20, 1996.

Benjamin Kadem, University of Maryland, "On Combining Instruments," November 21, 1996.

### **Data Assimilation Office**

Tadashi Tsuyuki, Florida State University, "4-DVAR Rainfall Assimilation," February 16, 1996

Richard Swenbank, British Meteorology Office, "Stratospheric Data Assimilation," March 29, 1996.

Brian Wong, Pennsylvania State University, "Acoustic Tomography in the Northeast Pacific Ocean," May 23, 1996.

Son Hoang, CNES, France, "Assimilation of the Altimetric Data into the PE Model (MICOM) by the Adaptive Filter," July 9, 1996.

Roni Avissar, Rutgers University, "Which Type of Observations are Needed to Evaluate High Resolution Atmospheric Models: A FIFE Case Study," July 30, 1996.

Evan Fishbein, Jet Propulsion Laboratory, "MLS Instrument and Validation of the Stratospheric Temperatures Retrieved with MLS," July 31, 1996.

Jame K. Luers, University of Dayton, "Temperature Correction Models for the World's Major Radiosondes," August 12, 1996.

Gail Skofronick Jackson, Georgia Institute of Technology, "The Retrieval of Precipitation Parameters Using Passive Microwave Brightness Temperature Imagery," October 3, 1996.

Keith S. Noll, Space Telescope Science Institute, "Detection of Ozone on Ganymede," October 8, 1996.

Eric Ray and James Holton, Department of Atmospheric Sciences, University of Washington, "Some Features of the Semiannual and Quasi-Biennial Oscillations of the Tropical Stratosphere as Observed by UARS," October 22, 1996.

Laurie Rokke, NCAR, "The Measurement of Pollution in the Troposphere (MOPITT) Simulation and Cloud Detection," October 28, 1996.

Weiyu Yang, "Development of the Adjoint Model of the RAS Parameterization Package and Error Analysis on Approximation Adjoint Calculations," November 7, 1996.

Lydie Lavanant, P. Brunel, Guy Brochard, Centre de Meteorologie Spatiale, "TOVS Sounding Products at CMS," November 14, 1996.

Gerald Potter, Lawrence Livermore National Lab, "Systematic Model Errors Uncovered During the Atmospheric Model Intercomparison Project," November 14, 1996.

Shawn Turner, Atmospheric Environment Service, "Forward Modelling for TOVS/GEOS at the Atmospheric Environment Service," December 3, 1996.

Wayne Higgins, National Meteorological Center, "Influence of the North American monsoon on the United States Summer Precipitation Regime," December 6, 1996.

Richard Menard, JCET, "Kalman Filter Data Assimilation of HALOE Observations," December 9, 1996.

Lars Peter Riishojgaard, USRA, "Potential Vorticity Modeling and Assimilation," December 10, 1996.

Yong Li, General Sciences Corporation, "Potential Vorticity Modeling and Assimilation," December 10, 1996. Shian-Jiann Lin, General Sciences Corporation, "Physically-Based Modeling of Geophysical Fluids, December 13, 1996.

### **Mesoscale Atmospheric Processes Branch**

Kazumasa Aonashi, Meteorological Research Institute, "Assimilating Microwave Radiometer Data into a Regional NWP Model," January 2, 1996.

David Kingsmill, University of Washington, "Inflow and Outflow Characteristics of Convection in TOGA-COARE," February 8, 1996.

Stefano Grivet-Talocia, SSAI, "Wavelet Analysis of a Microbarograph Network," February 20, 1996.

Kuan-Man Xu, Colorado State University, "Applications of Cloud Ensemble Simulation to Cloud Parameterizations," February 20, 1996.

Bill Kuo, NCAR/NMM, "Impact of GPS Data on the Prediction of an Extratropical Cyclone: An Observing System Simulation Study," February 21, 1996.

Anthony Giullory, Marshall Space Flight Center, "Variability of Integrated Water Content (IWC) from GOES Pathfinder Data," March 25, 1996.

Govindasamy Balasubramanian, Princeton University, "The Role of Eddy Momentum Fluxes in Shaping the Lifecycle of a Baroclinic Wave," April 5, 1996.

Henry Juang, EMC/NCEP, "Regional Climate Simulations Over Asia by the NCEP Regional Spectral Model," April 8, 1996.

Tom Rickenback, Colorado State University, "Convection in TOGA-COARE: Horizontal Scale, Morphology, and Rainfall Production," April 25, 1996.

Jeffrey B. Halverson, Universities Space Research Association, "Two Dimensional Modeling Investigations of a TOGA-COARE Mesoscale Convection System," May 28, 1996.

Joseph M. Prospero, University of Miami, "The Temporal and Spatial Variability of Aerosols in the Marine Boundary Layer Over the World's Oceans: Comparisons with AVHRR Aerosol Optical Thickness Measurements," June 10, 1996.

Peter G. Black, NOAA/AOML, "Eyewall Meso-vortices in Hurricanes Hugo and Andrew," June 19, 1996.

Xiaoqing Wu, National Center for Atmospheric Research, "Long Term Cloud Resolving Modeling of Cloud Systems Observed During TOGA-COARE," June 24, 1996.

Matthew McGill, University of Michigan, "Multi-Channel Incoherent Doppler Lidar Technique for Wind and Aerosol Measurements," July 15, 1996.

Leo Donner, Princeton University, "Elements of Cumulus Parameterization for Microphysics, Radiation and Initialization in Large-Scale Models," July 17, 1996.

Steve Koch, North Carolina State University, "Mesoscale Predictability Studies with the MM4 and MM5 Models in STORMFEST," September 27, 1996.

Konstatine Georgakakos, Scripps Institute of Oceanography, "Modeling Oceanic Tropical Rainfall Variability," October 11, 1996.

Brian Mapes, University of Colorado, "Hand in Glove: Deep Convection and its Stratified Environment," October 31, 1996.

Biao (Ben) Chen, The Ohio State University, "Simulated Global Atmospheric Response to Antarctic Forcing," November 21, 1996.

Anthony Davis, Science Systems and Applications, Inc., "Green's Functions Open New Horizons in Cloud Remote Sensing with Diffusing Solar and Lidar Photons," December 5, 1996.

Brad Ferrier, JCET, "Importance of Updraft Tilt in Two-Dimensional Simulations of Deep Convection," December 9, 1996.

J.-F. de La Beaujardiere, Universities Space Research Association, "Web Site Architecture," December 17, 1996.

Paul J. Roebber, University of Wisconsin at Milwaukee, "The Sensitivity of Precipitation to Circulation Details: An Analysis of Regional Analogues," December 17, 1996.

### **Climate and Radiation Branch**

Scott Power, BMRC, "Stability and Variability of the Thermohaline Circulation," January 24, 1996.

Gerry Mace, Pennsylvania State University, "The Relationship Between Composite Cirrus Morphology and Large-Scale Meteorology Derived from 94 GHZ Cloud Radar Data," February 7, 1996.

Hengyi Weng, General Sciences Corporation, "A Possible Source of Nonstationary Interannual Variability: Nonlinearity due to Frequency Modulation," February 14, 1996.

George Kilades, NOAA, "Characteristics of Observed Equatorial Rossby Waves Over the Pacific Sector," February 21, 1996.

Si-Chee Tsay, NASA Goddard Space Flight Center, "Spectral Reflectance and Atmospheric Energetics in Cirrus-like Clouds," February 28, 1996.

Winston Chao, NASA Goddard Space Flight Center, "Super Cloud Clusters, Twin Cyclones and All That," March 6, 1996.

De-Zheng Sun, NCAR, "Dynamic Ocean-Atmosphere Coupling: A Thermostat for the Tropics," March 20, 1996.

Judit Pap, UCLA, "Solar Total and Spectral Irradiance Variations," March 28, 1996.

Andrew Ackerman, NASA Ames Research Center, "Interactions Between Aerosols and Clouds in the Marine Boundary Layer," April 3, 1996.

Joel Susskind, NASA Goddard Space Flight Center, "ENSO Signals Seen in the TOVS Pathfinder A Data Set," April 17, 1996.

Rosana Ferreira, USRA Visiting Fellow, "TUTTs: Their Formation, Evolution, and Role in the General Circulation," April 25, 1996.

Chung-Hsiung Sui, NASA Goddard Space Flight Center, "Multiscale Air-Sea Interaction During TOGA-COARE," May 1, 1996.

Allen H. L. Huang, U. Wisconsin-Madison, "The Prospects of Advanced Infrared Sounders," May 8, 1996.

Robert Cahalan, NASA Goddard Space Flight Center, "Retrieval and Simulation of Fractal Clouds," May 15, 1996.

Thomas Bell, NASA Goddard Space Flight Center, "Sampling Error for Monthly Gridded Satellite Rainfall Estimates," June 5, 1996.

Stephen Klein, Princeton University, "ENSO Teleconnections in Tropical SSTs and their Causes," August 5, 1996.

Gabriele Hegerl, Max-Planck Institut fuer Meteorologie, "Multi-fingerprint Detection and Attribution of Anthropogenic Climate Change," September 16, 1996.

Michael King, NASA Goddard Space Flight Center, "Earth Observing System-Science Objectives and Challenges," September 18, 1996.

Bo-Cai Gao, Naval Research Laboratory, "Imaging Spectrometry and Applications to EOS/MODIS," October 2, 1996.

Dennis Chesters, NASA Goddard Space Flight Center, "Results and Opportunities on the Present and Future Geosynchronous Weather Climate and Observing Systems," October 16, 1996.

V. Krishnakumar, Applied Research Corporation, "Possible Role of Symmetric Instability in Asian Monsoon Transition," November 6, 1996.

Steve Esbensen, Oregon State University, "Enhancement of Tropical Ocean Evaporation and Sensible Heat Flux by Atmospheric Mesoscale Systems," November 7-8, 1996.

Guyla Molnar, Universities Space Research Association, "Variability of Marine Stratiform Cloud Systems Using Multispectral GOES Imagery," December 2, 1996.

Robert Cess, State University of New York, "Absorption of Solar Radiation by Clouds: Observations Versus Models," December 2, 1996.

Dan Imre, Brookhaven National Laboratory, "Quantifying Cloud-Induced Shortwave Absorption: An Examination of Uncertainties and of Recent Arguments for Large Excess Absorption," December 2, 1996.

Peter Pilewsie, NASA Ames Research Center, "Direct Observations of Excess Solar Absorption by Clouds," December 2, 1996.

Carlos R. Mechoso, UCLA, "Links Between the Pacific and Atlantic Climates," December 4, 1996.

Robert Ellingson, University of Maryland, "The ARM-UAV Program: Project Description and First Results," December 18, 1996.

### **Atmospheric Chemistry and Dynamics Branch**

James Crawford, Georgia Tech, "An Assessment of O<sub>3</sub> Photochemistry in the Extratropical Western, North Pacific based on PEM-West B Observations," June 20, 1996.

Lloyd Currie, NIST, "Tracing Biomass Burning Aerosol from the Combustion Laboratory to Summit, Greenland," July 18, 1996.

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